How did the financial crisis affect the transnationality of the global financial elite? One step forward and one step back

van Veen, Kees

Published in:
Global Networks

DOI:
10.1111/glob.12182

How did the financial crisis affect the transnationality of the global financial elite? One step forward and one step back

KEES VAN VEEN

Faculty of Economics and Business, University of Groningen, 9747 AE Groningen, The Netherlands
K.van.veen@rug.nl

Abstract *Over the last few decades, transnational elite formation progressed hand in hand with a deterioration in national business elites. Most studies regard this process as progressive and linear. However, we argue that transnational elite formation is subject to a variety of opposing forces, and the assumed progression is not a given fact. As an intriguing case, we analyse the financial business elite with a focus on the financial crisis of 2008. This international event had substantial ramifications, including a possible external shock to transnational elite formation. To study the consequences of the crisis, we collected the board composition data of the 48 largest transnational financial companies for the period 2006–11. Changes in board composition show opposing effects. For example, transnationality increased during the crisis, but reversals appeared when national governments intervened.*

Keywords BOARD TURNOVER, CORPORATE GOVERNANCE, ELITE NETWORKS, FINANCIAL CRISIS, FINANCIAL ELITE, INTERLOCKING DIRECTORATES

For the past few decades, national business elites have been internationalizing their operations by inviting executive and non-executive members from other countries to join their boards (Cárdenas 2015; Carroll 2010; Heemskerk 2013, 2016; Staples 2007). The contours of this emerging transnational business elite have become visible in two ways. First, an increasing number of executive and non-executive directors are accepting positions across borders and, consequently, creating cross-border interlocking directorates. Second, some directors have even migrated across national borders to become full-time board members in other countries (Burris and Staples 2012). Thus, while national elites are increasingly subjected to fragmentation and deterioration (Bühlmann et al. 2012; Heemskerk and Fennema 2009; Mizruchi 2013; Widmer 2011), the transnational dimension is steadily evolving. National borders seem to be disappearing, a transnational elite is emerging and the world appears to be becoming increasingly 'flat' (Friedman 2006; Sklair 2001).

Unlike the authors of most of the earlier studies on business elites, we do not see this process as a linear movement towards further transnationalization. we argue that it is necessary to analyse the changes in more detail and to pay special attention to the causes of the changing nature of business elites. At a national level, network densities differ markedly between countries, which creates a need for more detailed explanatory frameworks (Bühlmann et al. 2012; Cárdenas 2015; van Veen and Kratzer 2011). In addition, although notable exceptions such as India prove otherwise (Naudet and Dubost 2016), national network densities seem to decrease over time and become more fragmented. Internationally, however, which is important for this study, integration is increasing, but some countries are much better integrated into the global business elite than others. Some join the global elite, while others may disappear again over time. Why these differences emerge, and what determines such discrepancies in levels of global integration over time, is an important but hardly explored area.

To explore the deeper forces determining elite formation, we shall focus on one event – the financial crisis of 2008. The quickly globalizing financial sector was in crisis, which made it necessary for a substantial number of national governments to intervene in the operations of financial institutions rooted in their jurisdiction. Heemskerk (2013) and Heemskerk et.al. (2016), focusing specifically on the European interlock network, wondered if the crisis, as an external factor, could have influenced the presence of foreign members of boards. They concluded that the effects were not substantial and did not really change the shape of the transnational elite. Unfortunately, their analyses consisted of interpreting macro-level trends in a wide variety of companies and did not specifically address the financial sector, which was where the crisis really hit the boards. In addition, they examined the relevant macro-level trends, but failed to include the more detailed company-level ones. They were unable to determine what conditions strengthened or weakened the transnationalization of business elites or what individual company features affected the outcomes.

To bring this line of thought a step further, we analyse how the problems the financial institutions were encountering during the crisis affected the composition of their boards. The effect of the crisis on these boards is interesting for three reasons. First, an analysis of a very specific selection of companies, instead of the usual set of the largest companies, contributes to the literature. Second, the integration of financial markets had clearly internationalized the boards before 2008. Because some problematic assumptions underlay these international financial markets, a toxic mixture of increasingly complex financial products, coupled with short-term incentive schemes, culminated in a credit crisis with global repercussions (Bean 2010). The global financial crisis of 2008 presaged the collapse, or bail out by national governments, of an unprecedented number of financial institutions worldwide (Erkens et al. 2012). Presumably, this chain of events left its mark on the composition of the boards in question, which gives one an opportunity to study the effects of an external shock and to distinguish between the various levels of distress these institutions encountered. Third, such an external shock will directly affect the tasks and duties of these boards. Given that the crisis is an example of failing corporate governance systems, for which board members are formally responsible, one can expect to see severe consequences for the

composition of boards commensurate with the size of the problem the financial institution faces.

In this article, we bring two processes together – the internationalization of the boards before 2008, and the effects of the crisis on their composition afterwards. We ask a straightforward, rather descriptive, question: how did the crisis affect the composition and internationalization of the boards of global financial corporations over time? To answer this question, we created a new dataset consisting of the 48 most transnational financial corporations in the world, totalling more than 1000 board members, and then followed their composition and turnover during the crisis. We handpicked the data for the year before the crisis (2006), the year directly after it (2009) and then two years later (2011) to determine the medium-term consequences. In the analyses, to understand differences in turmoil, we related the inflow and outflow statistics per board to company characteristics and especially to corporate distress measures. Subsequently, and in an analogous way, we analysed inflow and outflow figures with a specific focus on the changing numbers of international directors.

Theoretical reflections

There are numerous sociological studies on the emergence of the transnational elite in general (Carroll 2010; Carroll and Fennema 2002, Heemskerk 2011; Kentor and Jang 2004; Staples 2007; van Veen and Kratzer 2011). Many of these focus on boards and analyse the nature of international networks, mostly in the form of cross-border movements of executives and non-executives, as an indicator of the nature of elites. On the board level, however, there are more detailed studies of internationalization in the management literature under the label 'nationality diversity'. This research focused on explanatory factors for differences in nationality diversity on boards (Greve et al. 2009; Nielsen and Nielsen 2010, 2011; Ruigrok and Greve 2008; van Veen and Elbertsen 2008; van Veen and Marsman 2008). These management studies explore company and country characteristics to explain the different rates of board globalization and other board diversity measures over time. In addition, they focus on the consequences of nationality diversity for various company performance measures. This field of study complements elite studies, which uses similar data, but both share a lack of attention to longitudinal processes and to the direct effects of specific events on internationalization.

The financial crisis of 2008 offers an interesting opportunity to see how an 'external' shock can affect the transnationalization of business elites in general, and financial elites as a case in point. Whereas most elite studies assume that economic globalization leads to the emergence of a transnational elite, the crisis hit the core operations of the boards of financial institutions. Although there are many explanations for the root cause of the crisis, massive failures in corporate governance clearly played a role. As the US Financial Crisis Inquiry Commission (2011) report stated, 'dramatic failures of corporate governance … at many systematically important financial institutions were a key cause of this crisis.' Apparently, existing corporate governance institutions prevented neither shareholders nor society at large from suffering the losses incurred during the crisis. Executives had taken irresponsible risks, non-executives did not monitor the operations of financial institutions, and they collectively failed in their fiduciary monitoring duties. This was a

failure that, in accordance with the essence of corporate governance rules, should lead to a crisis on the board and the exit of responsible executives and non-executives. When this occurs, it will also affect a key building block of the international financial elite.

The extent of the exposure of financial institutions to the crisis was directly related to the pressure that boards felt during that period and much of this pressure came from national actors and regulators (governments and regulating bodies). Consequently, a tension emerged between a wish to become international and the national embeddedness of the institution. One might argue that the crisis generated a counterforce against transnationalization. It seems likely that the global financial crisis delegitimized the international nature of a board and put the further transnationalization of the financial elite under pressure. One can expect a retreat into national arenas, which would clearly have a negative affect on the further genesis of the transnational financial elite.

More precisely, as an external shock, the financial crisis potentially affects boards in two different ways. First, it creates questions about turnover within boards. The crisis was not confined to financial markets, but extended into the corporate governance of financial institutions. It uncovered undeniable problems in the core tasks of boards, such as (a) monitoring executives; (b) risk management; and (c) executive compensation. Under normal conditions, failure of these points would lead to increased levels of executive and non-executive turnover (Dowell et al. 2011). The main difference here is that the crisis was not restricted to one problematic bank, but was systemic and global. As a result, one would expect it to affect boards in the global financial sector in general, but particularly the more exposed institutions.

A second, and related, point is that this crisis not only affected turnover levels, but also the subsequent selection for new board vacancies. Consequently, the composition of boards can change, so creating new patterns in the development of transnational elite formation. In the worst cases, international financial institutions had to turn to national governments to save them from bankruptcy and avoid chaos in financial markets (Adams 2012). The globalizing financial corporations became unexpectedly dependent on their country of origin for survival. This sudden dependency on the national context increased the relevance of national stakeholders at the expense of international ones. This quick shift in political landscape may have affected the position of international board members and increased the likelihood of recruitment of new national board members. As a result, nationality diversity on boards would decrease, leading to a deterioration of the transnational financial elite as it was developing.

Detailed expectations: how did the crisis affect board processes?

Several specific characteristics of distressed financial corporations affect the turnover and subsequent composition of boards. Here, we focus on three: size of write-downs, amount of new capital raised, and actual government interventions.

Write downs, capital raising and board turnover

The financial crisis began in the first quarter of 2006 when the US housing market turned. The collapse in the housing market led to a wave of future defaults in subprime

mortgages, and the number of problematic mortgages soared; this subsequently led to unprecedented losses throughout the financial sector. A significant wave of write-downs on risky mortgage-related positions, including loans, mortgage- and asset-backed securities as well as related derivatives, resulted. Distress moved through the system and was especially substantial in 2008. For instance, Citigroup announced its largest ever loss in its 197-year history when it announced write-downs totalling $19 billion in the final quarter of 2008. Between mid-2007 and mid-2009, financial institutions worldwide reported many hundreds of economically significant write-downs totalling approximately $1.3 trillion (Acharya and Richardson 2009). The effects were particularly severe for banking institutions with significant exposure to the US real estate market (Acharya et al. 2009).

In a non-crisis situation, a financial corporation experiencing a write-down should have a sufficient amount of capital to continue honouring withdrawals and other obligations and to avoid its collapse. However, the write-downs during this crisis were so huge that capital bases of financial corporations seriously eroded, and their solvency became questionable. Some distressed financial corporations had to demonstrate their problems publicly in terms of the size of their write-downs and to raise new capital. In this context, write-downs capture the losses associated with the risky investments in mortgage-backed securities and its fall-out in related products. Capital raisings were a good proxy for the extent of losses in that the firm had a need to raise new capital (Erkens et al. 2012). Many studies attribute the observed losses to the financial corporations' risk-taking behaviour (Stiglitz 2010). Risk-prone financial corporations were more engaged in excessive risk taking resulting in more significant losses. In accordance with this argument, the size of write-downs and capital raisings seem to be excellent proxies for the level of risk incurred by financial firms.

Earlier research shows a negative correlation between levels of risk taking and executive tenure (Gilson 2001; Pfeffer and Leblebici 1973). Large risks may result in substantial losses, for which the executive and non-executive directors are responsible and that lead to interventions from the board or shareholders. Given the problems in financial corporations during the crisis, one would expect a higher turnover of board members when there are larger write-downs and capital raisings (Expectation 1).

Systemic failure, government interventions and board turnover

Significant write-downs and capital raising led to a second concern in the financial industry. If a sizeable financial corporation collapsed, it could spread its problems through the entire financial system, causing substantial disintermediation and a credit crisis (Dietrich and Hauck 2012). On 20 June 2007, two highly levered Bear Stearns-managed hedge funds that invested in subprime asset-backed securities collapsed. Subsequently, the bankruptcy of Lehman Brothers in September 2008 triggered a further crisis of confidence. If Lehman Brothers was not 'too big to fail', who would be? From then on, not only the liquidity, but also the solvency, of financial institutions became an issue. This led to classic bank runs on several financial institutions

irrespective of the fact that they were more solvent than Lehman Brothers. In hindsight, Lehman Brothers incurred considerable systemic risk, which led to the near collapse of the financial system (Acharya et al. 2009). This stopped only when the US government announced its first bailout plan, TARP.

To stabilize the financial system in late 2008 and early 2009, governments not only intervened in the United States but also in the United Kingdom and several other Western European countries, including Belgium, France, Germany, Ireland, Luxembourg and the Netherlands. They purchased large amounts of illiquid and risky mortgage-backed securities from financial institutions and provided deposit guarantees and bad bank schemes (Dietrich and Hauck 2012). In a number of these cases, they, the governments, insisted on changes in top management as a condition for a company bailout (Erkens et al. 2012). In other cases, they simply replaced executives after nationalizing. For example, after obtaining full control of ABN AMRO in 2008, the Dutch government appointed the former Dutch minister of finance, Gerrit Zalm, as CEO. In this way, the governments triggered resignations at some financial corporations and appointed new board members at others.

Hence, a government bailout is an indication that a financial corporation should seriously worry about its ability to survive. There is an expectation that intervening governments should hold the corporate decision makers responsible for this and replace them with others who do not bear the burden of earlier failed policies. In the event of government intervention, one would expect to see an increased level of turnover (Expectation 2).

Consequences for nationality diversity of boards

The second question focuses on the effects of the financial crisis on the formation of a transnational business elite. Over the last two decades, executive and non-executive directors from other countries have increasingly populated the boards of financial institutions. Alongside the globalization of financial markets, the diversity of nationalities on boards has increased over time (Greve et al. 2009). In other words, more executives were leaving home to work for financial corporations in other countries. In fact, non-executive directors were starting to serve on boards across borders and, once they had multiple directorates, they would create cross-border interlocking directorates (Burris and Staples 2012). These cross-border activities demonstrate that separate national elites slowly integrate into one transnational business elite (Heemskerk 2011; van Veen and Kratzer 2011). The number of international directors on boards was on the rise, as was the density of the transnational interlocking directorates.

In the second analysis, we focus on the selection of new board members in the context of the financial crisis and pay special attention to changes in the diversity of nationalities (otherwise stated as a presence of international directors). Our expectation is that, the greater the financial distress of a financial corporation, the greater the likelihood of its board having to turn to its national government for help. When governments step in to prevent the serious national consequences of failing banks, the latter tend to revert to their national roots and lose their international outlook.

Consequently, one would expect to see a decrease in the diversity of nationalities on these boards over time.

There are two possible explanations for this. First, theories about board diversity hold that heterogeneity improves a firm's performance (Hambrick et al. 1996). However, in times of distress, smaller, more homogenous boards are often portrayed as more effective and more likely to secure the firm's survival (Dowell et al. 2011). In line with this argument, national candidates are familiar with the company's home country and do not need additional time to adapt to a new nation, culture and language. Instead, national members can have a direct impact on the organization and attempt to improve the situation from the start of their appointment. Consequently, higher levels of distress should lead to a decrease in nationality diversity, thus implying a weakening of the transnational business elite (Expectation 3).

Second, financial corporations experiencing more extreme distress turned – either voluntarily or involuntarily – to national governments for survival and the governments had no option but to use taxpayers' money to save them. Consequently, politicians had to 'sell' these policies to their constituents and explain why they used national taxes on an essentially international financial problem. To signal that this was a 'once and never again' situation, the governments had to show that they were in control of the outcome. Under such circumstances, people expect their government to favour national interests, which effectively leads to national pressure to reduce the international composition of boards.

This lowering of overall nationality diversity can result from a range of government decisions. First, 'replacing' international board members with nationals can be an act of economic nationalism. For instance, international board members signal a company's trustworthiness to international financial markets (Oxelheim and Randøy 2003; Oxelheim et al. 2013), whereas national ones signal it to the national tax payers who are saving the financial corporations from their risky (international) activities. However, we found no clear indications of such crude measures when collecting the data. Second, and more likely, the process may develop more implicitly. Governments can start to add national board members who effectively dilute the international character of the board. Observing the increasing importance of national stakeholders might make the international board members feel uncomfortable and increase the likelihood of their departure. The financial crisis clearly increased the importance of national stakeholder at the expense of the international ones, but it might take time before this starts to show in the numbers. As a result, government interventions could lead to a further deterioration of the transnationality of the financial elite (Expectation 4).

RESEARCH METHODOLOGY

The sample

For the analyses, we used a list of the 50 largest transnational financial corporations (TNCs), which the United Nations Conference on Trade and Development (UNCTAD) published in 2008 (see Appendix 1). While the corporations on the list are the most active internationally, they do not represent all financial corporations, or even

the entire financial sector. However, it has a few advantages. It contains most of the largest financial corporations in the world and since most of these fall into the category 'too big to fail', governments are likely to intervene when they are in distress. Finally, a potential bias towards more international financial corporations reduces overall generalizability. However, the list is helpful for studying transnational elites because it contains the companies in which transnationalization is most likely to occur.

We studied the composition of the board of each financial corporation at three different points in time. Since the market first realized the severity of the sub-prime mortgage crisis in 2007 (Ryan 2008), we decided to use the end of 2006 as the baseline measure (t_0). The massive government bailouts started in October 2008 and most analysts agreed that the official end of the financial crisis came when the financial markets stabilized in 2009 (Sherman 2011). We decided to take the composition of the board at the end of 2009 as the second measurement point (t_1). Since most of the bailouts were taking place at that time, it was possible to equate the stress with board composition. We subsequently added the end of 2011 as an extra measurement point (t_2) with a view to studying the effects in the longer run. Stress does not always directly change the composition of a board and the reputational fallout can continue for a while.

Subsequently, we handpicked data on each of the 1687 individual incumbents who served on the boards for one or more years during that period. In the cases of one-tier boards, we included the board members and the members of the executive teams as defined in the annual reports. For two-tier boards, we included both the supervisory and executive boards. Only once we had obtained all the nationality and personal information for each of the three measurement points did we include the financial corporations in the final sample. Subsequently, there were no problems with left or right censored firm observations. This procedure resulted in a list of 48 firms dispersed over 15 countries (see Appendix 1). The database includes 1030 board members for the end of 2006; 1025 board members for the end of 2009; and 1025 for the end of 2011.

Data on board members came primarily from annual reports and company websites. We also consulted articles from the *Financial Times*, *Business Week* and other media sources for additional career information. We gathered most of the financial information from DATASTREAM and the Bloomberg WDCI menu, which encompasses banks, brokers, insurance companies and government-sponsored entities (such as Freddie Mac and Fannie Mae).

Variables

We operationalized the main variables as follows.

Turnover: this variable consists of the number of board members who resigned relative to the size of the board at t_0. In this article, we are particularly interested in board departures related to corporate distress. However, board departures take several forms, including death, illness, mandatory retirement, early retirement for personal reasons, a new job elsewhere and dismissal. Companies often fail to disclose the real reason for a member's departure for fear of damaging company or personal reputations. This makes it virtually impossible to collect reliable data on individual board departures

on a larger scale, which is a limitation of departure studies in general. However, to solve this problem elegantly, we do not focus on individual reasons for a departure but use a rougher and more distant measure – board-level turnover. An increase in distress increases the likelihood of more executives and non-executives leaving.

Nationality diversity: to code the nationality of board members, we first established whether the companies themselves kept records of their nationalities. If not, we searched other public sources such as *Business Week* or Reuters for their places of birth. If there were still remaining doubts, we would take additional indicators into account, such as place of education or previous employer's country of origin. Consistent with previous research, 'international' or 'foreign' board members are people whose nationality does not match the country in which the company has its headquarters. In the few cases where individuals held dual citizenship, we conservatively coded them as 'national' rather than 'international'. We employed the proportion of international directors on a board as a proxy for nationality diversity. Subsequently, we calculated 'changes in nationality diversity' within the two periods (t_0-t1 en t_1-t_2) by subtracting proportions of both time periods.

Distress in financial corporations I: write-downs and capital raisings. Two indicators represent the level of distress during the crisis – the absolute size of a corporation's write-downs and the absolute amount of new capital to be raised. We often took these measures to capture the losses related to mortgage-backed securities, loan portfolios and investments in other firms (such as Lehman Brothers or Icelandic banks). The financial news and data service, Bloomberg, collected data on accounting write-downs and new capital raisings during the crisis period, measuring write-downs and capital raisings from the first quarter of 2007 until the third quarter of 2008. Appendix 2 contains an overview of these figures.

Distress in financial corporations II: government interventions. Distress has a second dimension. Does the government intervene when a financial corporation fails? Here, the size of the 'bailout', which can take the form of loans, bonds, stocks or cash and which may or may not require reimbursement, is the optimal measure. Two other factors are whether the government intervened (yes/no), and constructing a variable to reflect the total size of the government intervention in billions of dollars.

Table 1 exhibits correlations between the various crisis interventions in financial corporations. It demonstrates that the size of write-downs and capital raising correlate almost perfectly. As expected, the actual government interventions also correlate with these two variables. However, the amount of government support correlates especially strongly with the other financial distress parameters. This shows that governments initiated actions when distress levels were rising and financial corporations were 'too big to fail'. Due to these higher correlations between these different distress indicators and to avoid collinearity problems, we opted to use only two independent variables in the following regression analyses.

Control variables. We employ a few control variables to rule out alternative explanations. For the question of turnover, we include firm size by taking the logarithm of the total assets and number of employees of each financial corporation. Several studies suggest that larger firms are more likely to dismiss executives than smaller firms (Allen

1981; James and Soref 1981; Salancik and Pfeffer 1980). They think that the difference is due to a correlate of size and the pool of managerial talent (Dalton and Kesner 1983; Pfeffer and Moore 1980). Simply stated, a dissatisfied board of a larger firm would be more likely to dismiss executives because it has readily available alternatives from its larger internal pool of managerial talent. We derived the size data from the original UNCTAD list (see sample procedures).

Table 1: Pearson correlations between the four different stress measures of 48 of the most transnational financial corporations

	Write down (size)	Capital raising (size)	Government intervention (Y/N)	Government intervention (size)
Write down (size)	1.00			
Capital raising (size)	.95**	1.00		
Government intervention (Y/N)	.37**	.40**	1.00	
Government intervention (size)	.71**	.67**	.58**	1.00

To control for differences in international activities of the financial TNCs in the sample, we used 'number of foreign affiliates' and 'number of host countries'. As earlier research indicates, differences in the level of international activities correlate with the number of international directors within boards (Nielsen 2009; Oxelheim et al. 2013; van Veen and Marsman 2008).

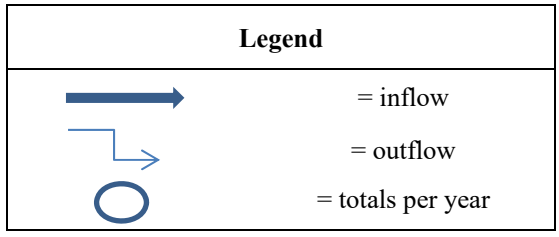
Analyses

To establish the effects of the financial crisis, we first study board turnover patterns during the crisis. In Table 2, we present the inflow and outflow of board members between the three measurement points. At the diagonal, we present the total number of board positions per years. These numbers are remarkably stable over time. Of a total of 1030 board positions in 2006, 1025 remained in 2011. Subsequently, we present the percentage of inflow and outflow in the different years. As Table 2 illustrates, of the 1030 board members by the end of 2006, 606 had left by the end of 2011 (= 58.8 per cent). The inflow and outflow percentages over the years are also remarkably stable. If one controls for the different periods between the three measurement points, it turns out to be around 14 per cent each year over the five years studied. In terms of board turnover, there are no specific differences between the different phases of the crisis.

Do these macro-level numbers imply that corporate distress during the crisis is unrelated to board turnover? On a corporate level, the figures can still fail to reveal a hidden turnover pattern. To explore this possibility, we correlated the absolute board outflow and inflow numbers per corporation with a variety of distress measures and other corporate characteristics (see Table 3). The results indicate some remarkable patterns. The four distress measures exhibit a sound and significant correlation with

Table 2: Absolute and relative numbers of inflows and outflows on the boards of the largest transnational financial corporations in the years around the financial crisis

	2006	**2009**	**2011**
2006	1030	445 (43.2%)	606 (58.8%)
2009	440 (42.9%)	1025	272 (26.5%)
2011	601 (58.1%)	272 (26.5%)	1025



board outflow between 2006 and 2009. Exactly how the underlying process works is a bit unclear with these univariate correlations, considering that these correlate substantially among themselves (see Table 1). Correlations with the outflow are much lower in the 2009–11 period. Correlations with the inflow of new board members demonstrate the same pattern. This suggests that both outflow and inflow were especially high in the financial corporations with higher levels of distress during the crisis years. Financial corporations with less distress apparently decreased their turnover in this period which compensates for the stable overall turnover numbers. In the second period, the turnover levels are lower and appeared normal again with respect to board inflow and outflow statistics. Overall, this confirms our first expectation.

Company characteristics also show an interesting pattern of correlations with the outflow and inflow of board members. Correlations with company size (total assets and number of employees) are low in both periods and not significant. However, turnover correlates quite strongly with the international nature of financial corporations,

especially in terms of the outflow numbers. The more foreign affiliates and the higher its scores on the GSI index, the higher the turnover during the crisis period. The second period does not demonstrate a meaningful pattern.

Table 3: Correlation table with absolute in- and outflows related to corporate characteristics

	Outflow 2006–2009 (abs.)	Outflow 2009–2011 (abs.)	Inflow 2006–2009 (abs.)	Inflow 2009–2011 (abs.)
Write down (size)	.49 (.00) ***	.17 (.24)	.52 (.00) ***	-.02 (.89)
Capital raising (size)	.50 (.00) ***	.18 (.23)	.54 (.00) ***	-.04 (.80)
Government intervention (Y/N)	.33 (.02) ***	.22 (.13)	.44 (.00) ***	.03 (.86)
Government support (size)	.55 (.00) ***	.04 (.80)	.55 (.00) ***	-.10 (.52)
Total Assets	.21 (.15) ***	.07 (.61)	.29 (.05) ***	.05 (.76)
Total number of employees	.10 (.51) ***	-.05 (.75)	.11 (.45) ***	-.23 (.11)
Number of foreign affiliates	.43 (.00) ***	.12 (.40)	.38 (.01) ***	-.08 (.58)
GSI-Index	.35 (.01) ***	.14 (.34)	.33 (.02) ***	.02 (.91)

Table 4A: Regression analyses – outflow proportions per board explained

	Outflow 2006–2009		Outflow 2006–2009		Outflow 2009–2011		Outflow 2009–2011	
	Beta	p	Beta	p	Beta	p	Beta	p
Total assets	.16	.38	.03	.86	.10	.58	.15	.43
Total employees	-.48	.03*	-.44	.02*	-.41	.09	-.49	.05*
# foreign affiliates	.40	.06	.37	.04*	.02	.92	.14	.53
# host countries	.06	.81	-.02	.93	.23	.36	.13	.64
Capital raising			-.04	.82			.19	.43
Size government intervention			.64	.00***			-.13	.54
	R^2 = .16 F = 2.07 p=.10		R^2 = .50 F = 6.80 p=.00		R^2 = .07 F = .79 p=.54		R^2 = .10 F = .76 p=.60	

All VIF values are below 3.5 so there is no sign of collinearity.

* = p < .05

** = p < .01

*** = p < .001

Table 4B: Regression analyses – inflow proportions per board explained

	Inflow 2006–2009		**Inflow 2006–2009**		**Inflow 2009–2011**		**Inflow 2009–2011**	
	Beta	p	Beta	p	Beta	p	Beta	p
Total assets	.21	.27	.12	.45	.20	.27	.21	.27
Total employees	-.44	.06	-.42	.03*	-.58	.01*	-.60	.01*
# foreign affiliates	.20	.37	.27	.14	-.01	.99	-.03	.89
# host countries	.11	.65	-.04	.84	.25	.29	.28	.29
Capital raising			.01	.94			.03	.90
Size government intervention			.58	.00***			-.09	.68
	R^2 = .10 F = 1.20 p=..37 n=48		R^2 = .44 F = 5.47 p=.00 n=48		R^2 = .14 F = 1.78 p=.15 n=48		R^2 = .15 F = 1.25 p=.30 n=48	

All VIF values are below 3.4 so there is no sign of collinearity.
* = p < .05
** = p < .01
*** = p < .001

How do patterns of the inflow and outflow of boards relate to financial distress levels when we combine the explanatory variables? Considering the structure of the dataset (boards nested within firms, a rather specific sample with 48 financial corporations, three different data points with an in-between event), a variety of more advanced statistical techniques seem potentially relevant at first. After a careful evaluation, these were all dropped for a variety of reasons. For instance, panel data analyses are not very helpful considering that we only have three measurement points. In addition, 'difference-in-differences methods' are unsuitable due to a lack of a clear distinction between treatment and control group. Ultimately, we decided on a series of ordinary least squares linear regression analyses on both time periods due to its straightforward application and interpretations.

Table 4 presents a series of these analyses. Table 4A analyses the percentage of board outflow per period. Each of the periods has a baseline model consisting of relevant corporate level control variables (total assets, number of employees, number of foreign affiliates, number of host countries). The results demonstrate a remarkable pattern. To begin with, the control variables explain little about the board dynamics for both periods. For the period 2006–09, the addition of two distress measures significantly improves the model. This has two implications. First, Model 2 depicts that the amount of extra capital raised during the crisis did not affect outflow at all. Within the boards, it seems business as usual. Second, the extent of government intervention has

a strong effect on the outflow of board members. However, this effect disappeared in the period after the crisis.

In Table 4B, the same pattern for the inflow percentages is evident. Three of the four models do not fit very well. However, only the model that contains the size of the government intervention during the crisis makes a large leap in terms of its explained variance. When governments intervene, they appear to enforce a substantial inflow of new board members. Overall, these findings confirm our second expectation.

What does this imply for nationality diversity within boards? As mentioned, one expects the numbers of international directors to decrease when financial corporations are in distress and when governments intervene. Our data exhibit otherwise when we just look at the frequencies. In 2006, there were 233 (22.6 per cent) international board members in our total sample. In 2009, their numbers increased to 252 (24.6 per cent). The period until 2011 again exhibited a minor decrease with 249 (24.3 per cent) in international directors. Contrary to our third expectation, it seems that the financial crisis has strengthened the transnational business elite instead of weakening it.

Absolute numbers do not tell the entire story. To create a better understanding, we employed regression models to comprehend the effect of the different stress measures on the proportion of international board members. The results are in Table 5.

Table 5: Regression analyses: change in proportions of international directors per board explained

	Model 1		**Model 2**		**Model 3**		**Model 4**	
	Δ prop. foreigners 2006–2009		**Δ prop. foreigners 2006–2009**		**Δ prop. foreigners 2009–2011**		**Δ prop. foreigners 2009–2011**	
Constant								
Total assets	.23	.22	.24	.21	.23	.21	.29	.10
Total # of employees	-.40	.09	-.34	.14	.26	.25	.14	.50
# foreign affiliates	.17	.44	.10	.64	-.42	.06	-.31	.13
# host countries	.12	.64	.31	.24	-.10	.66	-.34	.17
Capital raising			-.39	.10			.61	.01**
Government intervention (size)			.07	.72			-.45	.02*
	R^2 = .09 F = 1.07 p=..39 n=48		R^2 = .17 F = 1.41 p=.23 n=48		R^2 = .15 F =1.89 p=.13 n=48		R^2 = .30 F = 2.90 p=.02 n=48	

All VIF values are below 3.4 so there is no sign of collinearity.
* = p < .05
** = p < .01
*** = p < .001

The results show a different pattern. Model 1 demonstrates the baseline model with only control variables on a company level during the crisis years 2006–09. Model 2 adds the two distress indicators in the same period. In both cases, the models have a rather low fit. There are no significant effects of these stress measures on the proportion of international board members. Therefore, our third expectation is unconfirmed.

Models 3 and 4 represent the changes in the period of 2009–11 following the crisis. Here, the results begin to diverge. Compared with the other models, Model 4 fits nicely for two reasons. First, and consistent with our fourth expectation, the larger the government intervention, the more the proportion of international board directors decreased. Therefore, government intervention negatively affects this indicator for the genesis of the transnational business elite. However, the results also indicate that the more capital a financial corporation needed to raise during the crisis, the more significant its increase in proportion to international board members. Apparently, raising (foreign) capital has stimulated the recruitment of international board members. International investors met the short-term need for greater amounts of capital and increased their influence on the boards of these financial corporations. Hence, the conclusion about the negative effect on the transnational business elite was only partly true. Yes, government intervention led to a decreasing proportion of international board members, but the crisis also seemed to have created new opportunities for international board members. It counter balanced the effect of the government and strengthened the transnational financial elite.

Table 5 illustrates a second interesting point. The significant relationships found in Model 4 imply that the effects of both capital raising and government interventions are evident in the second period; the period when the first distress was over. If we combine the results of Tables 4A, 4B and 5, it becomes apparent that raising capital did not lead to extra turnover on the board. However, it did lead to higher proportions of international board members between 2009 and 2011. So, an adaptation of recruitment strategies followed the extra capital inflow and this subsequently led to more international directors. The tables also exhibit that government interventions significantly affected the outflow and inflow of the board during the time of distress. Although they had not yet affected the proportions of international board members, the number of international directors began to decrease in the period following the crisis. Apparently, the government interventions did not immediately affect international directors, but national board members were directly responsible for the burden. However, with some delay, the new dynamics on the board soon began to affect the position of international board members and led to a significant decrease in their representation. It is possible that international directors complete their terms on boards but, once they leave, national representatives replace them. So, overall, this partly confirms our fourth expectation. It is not financial distress itself that has led to a decrease in nationality diversity. When financial corporations solved their own financial problems, the internationalization was even higher, which meant a further step in the transnationalization of the financial elites. Only when national governments had to intervene, was there a decrease in nationality diversity, which reversed the further genesis of the transnational business elite.

Discussion and conclusions

So how did the financial crisis affect the transnationality of the financial elite? In investigating the 48 most transnational financial corporations, it appears as if the crisis did not affect inflow and outflow of board members over time. In general, inflow and outflow levels of board members seem remarkably stable for a crisis of this magnitude with clear corporate governance dimensions. These results also seem to be in line with the general findings of Heemskerk et al. (2016), who conclude that the financial crisis has not retrenched national elites into their national contexts. The transnational part of the elite remained largely intact.

From a detailed analysis of the inflow and outflow of board members, an alternative pattern emerges. First, the apparent stability over time conceals a dynamic process on a micro level. Financial corporations with substantial distress demonstrated higher levels of board member inflow and outflow during the crisis years. These elevated numbers were, however, compensated by a reduction of inflow and outflow in financial corporations with lower levels of distress. One can theorize that existential questions confronted *all* financial corporations during the panic in the financial markets. This required experienced board members to develop a corporate strategy out of their financial trouble. Board turnover could only add to the turmoil a financial corporation was in. These companies deliberately reduced turnover until the financial distress was under control. However, financial damage differed between corporations. As the results indicate, the greater the distress of the financial corporation, the greater the chances of a voluntary or involuntary turnover of board members.

Considering this pattern in turnover, we analysed the effect of the crisis on the transnational financial elite formation by studying levels of nationality diversity within these boards over time. The results reveal that the financial crisis affected the transnationality of the elite in two opposing directions. On the one hand, the higher the distress, the more financial corporations had to write down losses and the more they had to raise new capital. The higher a financial corporation scored on these measures, the higher the nationality diversity levels, especially in the second period. Apparently, the crisis *strengthened* the transnationality of the financial elite if financial corporations solved problems via (international) capital markets. On the other hand, when the financial distress of these corporations reached a dangerous level, governments intervened. Once financial corporations were subject to government interventions, the opposite happened. International directors began to leave (voluntarily or involuntarily) and national candidates replaced them. The levels of nationality diversity began to diminish in these cases. Taking this together, it implies that Heemskerk et al. (2016) is correct that business elites remained intact during and after the financial crisis. Even if we restrict ourselves to the financial elite, which was at the heart of the crisis, the macro-level conclusion is that the elite has not drawn back to its national roots. However, more detailed analyses show that there were observable changes at the micro-level. The level of distress of financial institutions relates to board composition processes in a variety of ways. As a result, the financial elite seems intact overall, but this is the result of countervailing board level dynamics that seem to even each other out.

Our findings raise a few issues that have wider ramifications. First, they stress that the formation of the transnational aspect of the financial elite is not an unhindered linear process, but one that is subject to ongoing board dynamics within companies. Depending on the circumstances, there seems to be either a strengthening or a weakening of the internationalization of the financial elite. Elites are dynamic over time and the underlying driving forces of these dynamics should receive more explicit attention. To comprehend this aspect of transnational elite formation in more detail, it is necessary to understand the conditions that turn national elites into members of the international elite (and vice versa). Further studies should take country characteristics into account, such as geographical distances, cultural differences, institutional variations in corporate governance systems and historical ties between countries (van Veen et al. 2014). Along these lines, paying further attention to company-level characteristics would complement analyses geared towards understanding when and how companies do or do not search for international board members. There is a need to consider relevant factors such as company size, international exposure, board recruitment strategies and corporate distress more systematically.

Second, transnational elite formation is subject to contextual processes outside the realm of the explicit boardroom of a specific corporation. We studied board turnover in relation to the financial crisis with a view to understanding how the crisis affected board composition as an indicator of financial elite formation. Although one can see the financial crisis as a unique event, there are plenty of opportunities to explore other relevant structural conditions. Important examples are the economic trade agreements (NAFTA, TTIP), the formation of the European Union (van Veen and Kratzer 2011) or the implementation of Brexit.

Finally, the financial crisis exposed several major flaws in the corporate governance systems of the financial industry. Controlling bodies like the boards of directors of financial corporations apparently did not function properly and were incapable of understanding the increasing complexities of the financial world. When such governance failure happens in one isolated board (such as ENRON), it usually has consequences for the board members in question (usually damaged reputations and voluntary or involuntary exits, but also fines or even prison sentences). However, the financial crisis brought trouble to most financial corporations simultaneously and revealed systemic failure in the entire industry. Interestingly, this collective failure did not lead to an extreme level of turnover among board members. Turnover of board members began to rise only when the financial distress of an individual financial corporation became severe. Recruitment of new board members further strengthened pre-crisis trends such as the formation of a transnational financial elite. That the internationalization of the financial elite was negatively affected only when national governments intervened clearly shows that it is not a linear process. So, overall, the formation of the transnational elite seems rather resilient even in an extreme financial crisis. Apparently, the transnational elites have survived even the worst crisis, albeit strengthened in some places and weakened in others. On a macro level, the transnational elite turned out to be rather resilient to this external shock even though there are clearly a variety of opposing micro-level trends observable. This underlines the

need to extend our future analyses of antecedents of board dynamics to understand what strengthens and weakens the elite formation processes in more detail.

Acknowledgements

I would like to thank Rick Nieters for his special assistance during the data collection phase and the initial steps of this project. I would also like to thank the three anonymous reviewers for their helpful and positive feedback.

References

Acharya, V. V. and M. Richardson (eds) (2009) *Restoring financial stability: how to repair a failed system*, Hoboken, NJ: John Wiley & Sons.

Acharya, V. V., T. Philippon, M. Richardson and N. Roubini (2009) 'The financial crisis of 2007–2009: causes and remedies', in V. V. Acharya and M. Richardson (eds) *Restoring financial stability: how to repair a failed system*, Hoboken, NJ: John Wiley & Sons, 89–137.

Adams, R. B. (2012) 'Governance and the financial crisis', *International Review of Finance*, 12 (1), 7–38, doi: 10.1111/j.1468-2443.2011.01147.x.

Allen, M. P. (1981) 'Power and privilege in the large corporation: corporate control and managerial compensation', *American Journal of Sociology*, 86 (5), 1112–23, doi: 10.1086/227356.

Bean, C. (2010) '*Joseph Schumpeter Lecture*: the Great Moderation, the Great Panic, and the Great Contraction', *Journal of the European Economic Association*, 8 (2/3), 289–325, doi: 10.1111/j.1542-4774.2010.tb00505.x.

Bühlmann, F., T. David and A. Mach (2012) 'The Swiss business elite (1980–2000): how the changing composition of the elite explains the decline of the Swiss company network', *Economy and Society*, 41 (2), 199–226, doi: 10.1080/03085147.2011.602542.

Burris, V. and C. L. Staples (2012) 'In search of a transnational capitalist class: alternative methods for comparing director interlocks within and between nations and regions', *International Journal of Comparative Sociology*, 53 (4), 323–42, doi: 10.1177/0020715212460256.

Cárdenas, J. (2015) 'Are Latin America's corporate elites transnationally interconnected? A network analysis of interlocking directorates', *Global Networks*, 15 (4), 424–45, doi: 10.1111/glob.12070.

Carroll, W. K. (2010) *The making of a transnational capitalist class: corporate power in the twenty-first century*, London: Zed Books.

Carroll, W. K. and M. Fennema (2002) 'Is there a transnational business community?', *International Sociology*, 17 (3), 393–419, doi: 10.1177/0268580902017003003.

Dalton, D. R. and I. F. Kesner (1983) 'Inside/outside succession and organizational size: the pragmatics of executive replacement', *Academy of Management Journal*, 26 (4), 736–42, doi: 10.2307/255919.

Dietrich, D. and A. Hauck (2012) 'Government interventions in banking crises: effects of alternative schemes on bank lending and risk taking', *Scottish Journal of Political Economy*, 59 (2), 133–61, doi: 10.1111/j.1467-9485.2011.00573.x.

Dowell, G. W. S., M. B. Shackell and N. V. Stuart (2011) 'Boards, CEOs, and surviving a financial crisis: evidence from the internet shakeout', *Strategic Management Journal*, 32 (10), 1025–45, doi: 10.1002/smj.923.

Erkens, D. H., M. Hung and P. Matos (2012) 'Corporate governance in the 2007–2008 financial crisis: evidence from financial institutions worldwide', *Journal of Corporate Finance*, 18 (2), 389–411, doi: 10.1016/j.jcorpfin.2012.01.005.

Friedman,T. L. (2006) *The world is flat: the globalized world in the twenty-first century*, London: Penguin Books.

Gilson, S. C. (2001) 'Bankruptcy, boards, banks, and blockholders: evidence on changes in corporate ownership and control when firms default', in M. J. Brennan (ed.) *Empirical corporate finance, volume 4 (The international library of critical writings in financial economics series)*, Cheltenham: Edward Elgar, 445–77.

Greve, P., S. Nielsen and W. Ruigrok (2009) 'Transcending borders with international top management teams: a study of European financial multinational corporations', *European Management Journal*, 27 (3), 213–24, doi: 10.1016/j.emj.2008.10.001.

Hambrick, D. C., T. S. Cho and M. J. Chen (1996) 'The influence of top management team heterogeneity on firms' competitive moves', *Administrative Science Quarterly*, 41 (4), 659–84, doi: 10.2307/2393871.

Heemskerk, E. M. (2011) 'The social field of the European corporate elite: a network analysis of interlocking directorates among Europe's largest corporate boards', *Global Networks*, 11 (4), 440–60, doi: 10.1111/j.1471-0374.2011.00315.x.

Heemskerk, E. M. (2013) 'The rise of the European corporate elite: evidence from the network of interlocking directorates in 2005 and 2010', *Economy and Society*, 42 (1), 74–101, doi: 10.1080/03085147.2012.686720.

Heemskerk, E. and M. Fennema (2009) 'Network dynamics of the Dutch business elite', *International Sociology*, 24 (6), 807–32, doi: 10.1177/0268580909343496.

Heemskerk, E., M. Fennema and W. C. Carroll (2016) 'The global corporate elite after the crisis: evidence from the transnational network of corporate directorates', *Global Networks*, 16 (1), 68–88, doi: 10.1111/glob.12098.

James, D. R. and M. Soref (1981) 'Profit constraints on managerial autonomy: managerial theory and the unmaking of the corporate president', *American Sociological Review*, 46 (1), 1–18, available at: www.jstor.org/stable/2095023.

Kentor, J. and Y. S. Jang (2004) 'Yes, there is a (growing) transnational business community: a study of global interlocking 1983–98', *International Sociology*, 19 (3), 355–68, doi: 10.1177/0268580904045345.

Mizruchi, M. S. (2013) *The fracturing of the American corporate elite*, Cambridge, MA: Harvard University Press.

Naudet, J. and C.-L. Dubost (2016) 'The Indian exception: the densification of the network of corporate interlocks and the specificities of the Indian business system (2000–2012)', *Socio-Economic Review*, 15 (2), 405–34, doi: 10.1093/ser/mwv035.

Nielsen, S. (2009) 'Why do top management teams look the way they do? A multilevel exploration of the antecedents of TMT heterogeneity', *Strategic Organization*, 7 (3), 277–305, doi: 10.1177/1476127009340496.

Nielsen, S. and B. B. Nielsen (2010) 'Why do firms employ foreigners on their top management team? An exploration of strategic fit, human capital and attraction–selection–attrition perspectives', *International Journal of Cross Cultural Management*, 10 (2), 195–209, doi: 10.1177/1470595810370912.

Nielsen, B. B. and S. Nielsen (2011) 'The role of top management team international orientation in international strategic decision-making: the choice of foreign entry mode', *Journal of World Business*, 46 (2), 185–93, doi: 10.1016/j.jwb.2010.05.003.

Oxelheim, L. and T. Randøy (2003) 'The impact of foreign board membership on firm value', *Journal of Banking and Finance*, 27 (12), 2369–92, doi: 10.1016/S0378-4266(02)00395-3.

Oxelheim, L., A. Gregorič, T. Randøy and S. Thomsen (2013) 'On the internationalization of corporate boards: the case of Nordic firms', *Journal of International Business Studies*, 44 (3), 173–94, doi: 10.1057/jibs.2013.3.

Pfeffer, J. and H. Leblebici (1973) 'Executive recruitment and the development of interfirm organizations', *Administrative Science Quarterly*, 18 (4), 449–61, doi: 10.2307/2392198.

Pfeffer, J. and W. M. Moore (1980) 'Average tenure of academic department heads: the effects of paradigm, size, and departmental demography', *Administrative Science Quarterly*, 25 (3), 387–406, doi: 10.2307/2392259.

Ruigrok, W. and P. Greve (2008) 'The rise of an international market for executive labour', in L. Oxelheim and C. Wihlborg (eds) *Markets and compensation for executives in Europe*, Bingley: Emerald Group, 53–78.

Ryan, S. G. (2008) 'Accounting in and for the subprime crisis', *Accounting Review*, 83 (6), 1605–38, doi: 10.2308/accr.2008.83.6.1605.

Salancik, G. R. and J. Pfeffer (1980) 'Effects of ownership and performance on executive tenure in US corporations', *Academy of Management Journal*, 23 (4), 653–64, doi: 10.2307/255554.

Sherman, H. (2011) 'Portrait of a crisis', *Journal of Economic Issues*, 45 (3), 703–16.

Sklair, L. (2001) *The transnational capitalist class*, Oxford: Blackwell.

Staples, C. L. (2007) 'Board globalisation in the world's largest TNCs 1993–2005', *Corporate Governance: An International Review*, 15 (2), 311–21, doi: 10.1111/j.1467-8683.2007.00573.x.

Stiglitz, J. E. (2010) *Freefall: America, free markets, and the sinking of the world economy*, New York: W.W. Norton & Co.

US Financial Crisis Inquiry Commission (2011) 'The financial crisis inquiry report: final report of the National Commission on the Causes of the Financial and Economic Crisis in the United States', available at: www.gpo.gov/fdsys/pkg/GPO-FCIC/pdf/GPO-FCIC.pdf.

van Veen, K. and J. Elbertsen (2008) 'Governance regimes and nationality diversity in corporate boards: a comparative study of Germany, the Netherlands and the United Kingdom', *Corporate Governance: An International Review*, 16 (5), 386–99, doi: 10.1111/j.1467-8683.2008.00698.x.

van Veen, K. and J. Kratzer (2011) 'National and international interlocking directorates within Europe: corporate networks within and among fifteen European countries'. *Economy and Society*, 40 (1), 1–25, doi: 10.1080/03085147.2011.529376.

van Veen, K. and I. Marsman (2008) 'How international are executive boards of European MNCs? Nationality diversity in 15 European countries', *European Management Journal*, 26 (3), 188–98, doi: 10.1016/j.emj.2007.12.001.

van Veen, K., P. Rao Sahib and E. Aangeenbrug (2014) 'Where do international board members come from? Country-level antecedents of international board member selection in European boards', *International Business Review*, 23 (2), 407–17, doi: 10.1016/j.ibusrev.2013.06.008.

Widmer, F. (2011) 'Institutional investors, corporate elites and the building of a market for corporate control', *Socio-Economic Review*, 9 (4), 671–97, doi: 10.1093/ser/mwr014.

APPENDIX 1: Top 50 financial TNCs ranked by GSI, 2008 (millions of US$ and number of employees)

Rank 2008	GSI	Rank 2007	GSI	Financial TNCs	Home economy	Total (Assets)	Total (Employees)
1	72.9	1	67.0	Citigroup Inc.	US	1 938 470	322 800
2	62.2	3	64.2	Allianz SE	Germany	1 367 062	182 865
3	59.8	10	54.0	ABN AMRO holding NV	Netherlands	953 959	69 747
4	59.5	4	60.2	Generali SpA	Italy	549 269	84 063
5	59.3	7	57.6	HSBC Holdings PLC	UK	2 527 465	331 458
6	59.0	11	52.7	Société Générale	France	1 616 599	160 430
7	57.6	6	59.0	Zurich Financial Services	Switzerland	327 944	57 609
8	57.0	5	59.1	UBS AG	Switzerland	1 926 209	77 783
9	56.7	9	56.3	Unicredito Italiano SpA	Italy	1 495 868	174 519
10	56.1	8	56.5	Axa	France	963 539	109 304
11	55.4	2	65.5	BNP Paribas	France	2 969 315	173 188
12	52.4	14	45.8	Deutsche Bank AG	Germany	3 150 820	80 456
13	51.2	17	42.2	American International Group Inc.	US	860 418	116 000
14	51.1	12	50.5	Credit Suisse Group AG	Switzerland	1 118 881	47 800
15	50.0	15	45.6	Swiss Reinsurance Company	Switzerland	229 328	11 560
16	46.7	27	37.0	Dexia	Belgium	931 339	28 099
17	46.6	18	41.8	Crédit Agricole SA	France	2 365 122	88 933
18	44.3	21	39.9	Natixis	France	795 079	22 096
19	43.5	13	49.6	ING Groep NV	Netherlands	1 905 097	124 661
20	43.5	16	42.8	Banco Santander SA	Spain	1 501 619	170 961
21	41.0	22	38.9	KBC Group NV	Belgium	508 322	59 510
22	41.0	23	38.8	The Bank of Nova Scotia	Canada	416 427	69 049
23	39.9	31	34.5	Barclays PLC	UK	3 001 433	151 500
24	39.6	19	41.7	Fortis NV	Belgium	132 861	10 374
25	39.1	28	36.8	The Royal Bank of Canada	Canada	593 814	73 323
26	39.1	20	40.9	Merrill Lynch & Company Inc.	US	667 543	58 500
27	38.9	41	30.6	Intesa Sanpaolo	Italy	910 062	108 310
28	38.8	25	38.0	Standard Chartered PLC	UK	435 068	73 802
29	38.2	24	38.3	JPMorgan Chase & Company	US	2 175 052	224 961
30	37.7	29	35.8	Skandinaviska Enskilda Banken AB	Sweden	326 489	21 291
31	37.7	30	34.7	Muenchener Rueckversicherung AG	Germany	308 179	44 209
32	36.7	32	34.3	Morgan Stanley	US	658 812	46 964
33	36.1	34	33.4	The Goldman Sachs Group Inc.	US	884 547	30 067
34	34.7	37	31.7	BBV Argentaria SA	Spain	776 323	111 936
35	34.6	36	32.4	Aviva PLC	UK	518 365	54 758
36	33.5	40	31.2	Berkshire Hathaway Inc.	US	267 399	246 000
37	33.4	38	31.4	Nordea Bank AB	Sweden	678 217	34 008
38	33.2	44	29.0	Mitsubishi UFJ Financial Group	Japan	2 200 818	78 302
39	33.2	33	34.0	Bank Of New York Mellon Corp.	US	237 512	42 900
40	32.7	35	33.4	Nomura Holdings Inc.	Japan	275 059	18 026
41	32.6	49	22.9	Royal Bank of Scotland Group PLC	UK	3 511 187	199 000
42	31.6	39	31.4	Manulife Financial Corp.	Canada	308 782	24 000
43	31.3	63	17.3	Hypo Real Estate Holding	Germany	600 363	1 786
44	31.1	58	19.5	DnB Nor ASA	Norway	263 592	14 057
45	27.3	47	24.8	Prudential PLC	UK	315 120	29 683
46	26.6	45	27.0	Aegon NV	Netherlands	410 957	31 425
47	26.5	48	24.7	Mizuho Financial Group Inc.	Japan	1 691 286	49 114
48	26.2	42	29.4	Danske Bank A/S	Denmark	680 095	23 624
49	25.8	55	19.9	Bank of Ireland PLC	Ireland	277 705	16 026
50	25.6	53	21.5	Svenska Handelsbanken AB	Sweden	280 726	10 833

Source: World Investment Report 2009, UNCTAD/HEC Montreal.

APPENDIX 2: Cumulative write-downs and capital raisings per financial transnational corporations (first quarter 2007–third quarter 2008) (in billion US$)*

Financial TNCs	Write-downs	Capital raisings
Citigroup Inc.	60.8	71.1
Allianz SE	4.1	0.0
ABN AMRO holding NV	2.3	0.0
Generali SpA	2.0	0.0
HSBC Holdings PLC	27.4	21.6
Société Générale	6.8	16.8
Zurich Financial Services	0.6	0.0
UBS AG	44.2	28.3
Unicredito Italiano SpA	2.8	5.4
Axa	3.8	3.0
BNP Paribas	4.0	6.3
Deutsche Bank AG	10.8	6.1
American International Group Inc.	90.8	82.2
Credit Suisse Group AG	10.5	11.6
Swiss Reinsurance Company	1.7	2.6
Dexia	1.6	0.0
Crédit Agricole SA	8.8	8.5
Natixis	5.3	11.8
ING Groep NV	6.7	4.8
Banco Santander SA	1.1	0.0
KBC Group NV	10.7	5.7
The Bank of Nova Scotia	1.5	0.0
Barclays PLC	9.1	18.6
Fortis NV	7.4	23.1
The Royal Bank of Canada	2.2	0.0
Intesa Sanpaolo	0.7	2.2
Standard Chartered PLC	0.5	1.5
JPMorgan Chase & Company	18.8	19.7
Skandinaviska Enskilda Banken AB	0.3	0.0
Muenchener Rueckversicherung AG	0.6	0.0
Morgan Stanley	15.7	14.6
The Goldman Sachs Group Inc.	4.9	10.6
BBV Argentaria SA	1.0	0.0
Aviva PLC	0.5	0.0
Berkshire Hathaway Inc.	0.8	0.0
Nordea Bank AB	1.0	3.3
Mitsubishi UFJ Financial Group	1.6	4.5
Nomura Holdings Inc.	3.4	6.8
Royal Bank of Scotland Group PLC	14.9	24.3
Manulife Financial Corp.	2.4	4.7
Hypo Real Estate Holding	3.6	0.0
DnB Nor ASA	1.7	2.4
Prudential PLC	2.0	0.0
Aegon NV	2.7	1.0
Mizuho Financial Group Inc.	6.1	5.7
Danske Bank A/S	2.0	0.0
Bank of Ireland PLC	5.2	4.4
Svenska Handelsbanken AB	0.5	0.0

**Euros converted to US$ with the XE online money converter.*